

continue to respond with beautifully coloured brochures, more and longer forms for the filling in thereof, and the appointment of more committees to travel backwards and forwards from Canberra. So I am certain that if meaningful action is to be taken in regard to the matters of bat conservation and research raised by Les Hall "we" must take them — "we" being the people interested in bat conservation together with biologists and volunteers who are willing to put in the effort required to establish a national centre and maintain a co-ordinator. That of course requires organization, but there is in my opinion an existing organization well placed to take up the challenge — the Royal Zoological Society of New South Wales. The RZS is already involved in bat studies through its BATWATCH programs, and has a large network of people interested enough in bats to have supplied sighting reports of Grey-headed Flying-foxes to BATWATCH. To shift from a New South Wales study of one species to a national programme related to all bats would require

a great expansion of the Society's thinking and activities, but it has already achieved a national outlook and reputation with numerous national conferences and even one major international conference (the 8th International Bat Research Conference 1989). Great effort would be required to obtain the funding necessary to support a co-ordinator, but it is essential to the success in establishing and maintaining a volunteer organization to have as a focus a permanent, paid co-ordinator, even if only part-time. Funds could be obtained from private donations and, as Les Hall proposed, from grants. That will not be easy, but as Harry Recher states (also in "The Australian Zoologist" volume 26 number 1), "It will be up to non-government organizations to provide government with the ideas, information and timetables that government cannot provide for itself". The current reality of support for bat conservation and research in Australia requires a change in thinking from "They orta" to "We can".

---

## Response to Les Hall

Bruce Thompson

Conservation Commission, Alice Springs, Northern Territory

A general lack of information on the distribution and abundance of many bat species certainly hinders our ability to assess their conservation status.

The most visible species, the flying-foxes and cave dwelling bats have at least been observed (if not studied) over a sufficient period of time to enable researchers to identify changes in their distribution and abundance. Cave dwelling species have also provided a record of their past distributions in the form of guano and skeletal deposits in the protected environment of cave systems. Cave dwellers and the larger flying foxes, however, constitute only about one quarter of Australia's bat fauna.

The remaining three quarters are forest or tree-dwelling species which are not easily observed and for which we have even less information. Methods commonly used to survey these species rely on "capture in flight" techniques such as mist-netting, harp trapping and of course, the twelve gauge shotgun which was probably the first introduction that many Australian bat populations had to wildlife surveyors. While these techniques may provide an indication of species presence in an area, they are of limited use in determining roost requirements or social behaviour.

Subsequently, there is a definite need to conduct surveys and ecological studies on Australian bat species. The suggestions listed by Les Hall under "What Needs

to be Done" are of paramount importance and some of the studies proposed may even provide ecological insights that reach far beyond the subject species. For instance, there is now sufficient evidence to show that the Ghost Bat, *Macroderma gigas* was once widely distributed over the Australian mainland. The retraction of this species' range does readily correlate with the changes wrought by Europeans and may in fact indicate a completely separate scenario of environmental changes. A detailed study of this species' physiology and ecology may provide important insights into the reasons behind the demise of so many of our arid zone mammals which all fall into much the same "critical" size and weight class.

Attitudes to the environment have changed markedly over the last few years and the conservation of our native flora and fauna is now of more concern to the general public than it ever has been. As any politician can attest, public opinion plays a major role in determining government environmental policy and hence, the level of funding provided to conservation organizations. It is important, therefore, that bat conservation issues receive publicity and are carried along on the wave of public concern that supports so many of our current environmental issues. With this public support and a growing awareness of the role that bats play, one can only hope that Les's suggestions will come to fruition.